

91-21



United States  
Department of  
Agriculture

National  
Agricultural  
Library

Beltsville  
Maryland  
20705



# Stress in Sheep and Goats

January 1979 - August 1990

QB 91-21  
Quick Bibliography Series



A 17.18/4:

READER  
FICHE

best copy available

Bibliographies in the Quick Bibliography Series of the National Agricultural Library, are intended primarily for current awareness, and as the title of the series implies, are not indepth exhaustive bibliographies on any given subject. However, the citations are a substantial resource for recent investigations on a given topic. They also serve the purpose of bringing the literature of agriculture to the interested user who, in many cases, could not access it by any other means. The bibliographies are derived from computerized on-line searches of the AGRICOLA data base. Timeliness of topic and evidence of extensive interest are the selection criteria.

The author/searcher determines the purpose, length, and search strategy of the Quick Bibliography. Information regarding these is available upon request from the author/searcher.

Copies of this bibliography may be made or used for distribution without prior approval. The inclusion or omission of a particular publication or citation may not be construed as endorsement or disapproval.

To request a copy of a bibliography in this series, send the title, series number and self-addressed gummed label to:

**U.S. Department of Agriculture**  
**National Agricultural Library**  
Public Services Division, Room 111  
Beltsville, Maryland 20705

# **Stress in Sheep and Goats**

**January 1979 - August 1990**

**Quick Bibliography Series: QB 91-21**

**139 Citations from AGRICOLA**

**Janice C. Swanson  
Animal Welfare Information Center**



**Animal  
Welfare**

**National Agricultural Library Cataloging Record:**

Swanson, Janice C.

Stress in sheep and goats.

(Quick bibliography series ; 91-21)

1. Sheep -- Bibliography. 2. Goats -- Bibliography. 3. Stress (Physiology) -- Bibliography.

I. Title.

aZ5071.N3 no.91-21



## DOCUMENT DELIVERY SERVICES TO INDIVIDUALS

The National Agricultural Library (NAL) has a unique responsibility to supply copies of agricultural materials not found elsewhere.

Filling requests for materials readily available from other sources would divert NAL's resources and diminish its ability to serve as a national source for agricultural and agriculturally related materials. Therefore, NAL should be viewed as a library of last resort and individuals should submit requests first to local or state sources prior to sending to NAL. In the United States, possible sources are public libraries, land-grant university or other large research libraries within a state. Individuals in other countries should submit requests through major university, national, or provincial institutions.

If the needed publications are not available from these sources, the requests may be submitted to NAL with a statement indicating their non-availability. Submit one request per page following the instructions for libraries below.

### NAL's DOCUMENT DELIVERY SERVICE INFORMATION FOR THE LIBRARY

The following information is provided to assist your librarian in obtaining the required materials.

**LOAN SERVICE** — Materials in NAL's collection are loaned only to other U.S. libraries. Requests for loans should be made through local public, academic, or special libraries.

The following materials are not available for loan: serials (except USDA serials); rare, reference, and reserve books; microforms; and proceedings of conferences or symposia. Photocopy or microform of non-circulating publications may be purchased as described below.

**DOCUMENT DELIVERY SERVICE** — Photocopies of articles are available for a fee. Requests must be made through local public, academic, or special libraries. The library should submit a separate interlibrary loan form for each article or item requested. If the citation is from an NAL database (CAIN/AGRICOLA, *Bibliography of Agriculture*, or the NAL Catalog) and the call number is given, that call number should be listed in the proper block on the request form. Willingness to pay charges must be indicated on the form. Compliance with copyright law or a statement that the article is for "research purposes only" must be included on the interlibrary loan form. Requests cannot be processed without these statements.

#### Charges:

- Photocopy, hard copy of microfilm and microfiche — \$5.00 for the first 10 pages or fraction copied from a single article or publication. \$3.00 for each additional 10 pages or fraction.
- Duplication of NAL-owned microfilm — \$10.00 per reel.
- Duplication of NAL-owned microfiche — \$ 5.00 for the first fiche and \$ .50 for each additional fiche per title.

**Billing** — Charges include postage and handling, and are subject to change. Invoices are issued quarterly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161. Requesters are encouraged to establish deposit accounts with NTIS. **DO NOT SEND PREPAYMENT.**

#### Send Requests to:

USDA, National Agricultural Library  
Lending Branch, ILL, 6th Floor  
Beltsville, Maryland 20705-2351

Questions concerning these services may be made by correspondence to Head, Lending Branch or by telephone (301) 344-3755.



## AGRICOLA

Citations in this bibliography were  
entered in the AGRICOLA  
database between January 1979  
and the present.



## STRESS IN SHEEP AND GOATS

### SEARCH STRATEGY

| <u>LINE</u> | <u>COMMAND</u>                                                           |
|-------------|--------------------------------------------------------------------------|
| 1.          | S sheep or ovin? or ewe? ? or ram? ? or wether? or<br>goat? ? or lamb? ? |
| 2.          | S stress?                                                                |
| 3.          | S S1 and S2                                                              |
| 4.          | RD S3                                                                    |



0001

**Adrenal responsiveness in domestic sheep (*Ovis aries*) to acute and chronic stressors as predicted by remote monitoring of cardiac frequency.**

CJZDAG. Harlow, H.J. ; Thorne, E.T.-Williams, E.S.-Belden, E.L.-Gern, W.A. Ottawa, Canada : National Research Council of Canada. Canadian journal of zoology = Journal canadien de zoologie. Aug 1987. v. 65 (8). p. 2021-2027. Includes references. (NAL Call No.: DNAL 470 C16D).

0002

**Animal handling.**

Grandin, T. Davie, Fla. : The Association. 1978. Animal air transportation, a global industry : proceedings of the fourth annual International Meeting, Animal Air Transportation Association, November 6-9, 1978 Toronto, Ontario, Canada. / edited by A. Ann McWilliam. p. 77-83. 111. Includes references. (NAL Call No.: DNAL TL720.7.A5 1978).

0003

**Animal stress and its effects on rigor mortis development in lambs.**

Chrystall, B.E. ; Devine, C.E.-Davey, C.L.-Kinton, A.H. The Hague, Martinus Nijhoff. Current topics in veterinary medicine. 1981. v. 10. p. 269-288. 111. Includes 2 p. ref. (NAL Call No.: SF600.C82).

0004

**Animal welfare and natural disasters in the grazing industry.**

Alexander, G.I. Indooroopilly, QLD : Australian Veterinary Association (Queensland Division). 1985. Grazing Animal Welfare Symposium : proceedings of a symposium held at the Bardon Professional Development Centre, Brisbane, on April 26th and 27th, 1985 / editors: Brian L. Moore and Peter J. Chanoweth. p. 57-65. Includes references. (NAL Call No.: DNAL SF85.4.A9G72 1985).

0005

**Apparent digestibilities of dry matter, and nitrogen in the small intestine of wethers exposed to cold environments.**

UAABB. Kelly, J.M. ; Christopherson, R.J. Edmonton : The Faculty. Agriculture & forestry bulletin - Alberta University. Faculty of Extension. Paper presented at the 65th Annual Feeders' Day Report, July, 1986. University of Alberta, Canada. 1986. (special issue). p. 65-66. (NAL Call No.: DNAL 101 AL1A).

0006

**The apparent digestibilities of dry matter, organic matter and nonammonia nitrogen in the forestomach, small intestine, and large intestine of wethers exposed to a cold environment.**

CNJNA. Kelly, J.M. ; Christopherson, R.J. Ottawa : Agricultural Institute of Canada. Canadian journal of animal science. Dec 1989. v. 69 (4). p. 911-919. Includes references. (NAL Call No.: DNAL 41.8 C163).

0007

**Apparent digestibility of amino acids and other nitrogenous compounds in the small intestine of wethers exposed to a cold environment.**

CNJNA. Kelly, J.M. ; Christopherson, R.J.-Early, R.J. Ottawa : Agricultural Institute of Canada. Canadian journal of animal science. Dec 1989. v. 69 (4). p. 921-929. Includes references. (NAL Call No.: DNAL 41.8 C163).

0008

**Arthropod-induced stress in livestock.**

Campbell, J.E. Philadelphia, Pa. : W.B. Saunders Company. The Veterinary clinic of North America : food animal practice. In the series analytic: Stress and disease in cattle / edited by J.L. Howard. Nov 1988. v. 4 (3). p. 551-555. Includes references. (NAL Call No.: DNAL SF601.V535).

0009

**Behavior of sheep, heifers and buffalo heifers exposed to heat stress in a cold-energy chamber (Metabolic aspects).**

Comportamento di pecore, vitelle e bufalotte sottoposte a stress termico in camera psicroenergetica. ITALIAN. Borghese, A. Rome, Il Istituto. Annali dell'Istituto Sperimentale per la Zootecnia. 1978. v. 11 (2). p. 203-226. 111. 44 ref. (NAL Call No.: SF1.18).

0010

**Behavioural and hormonal responses to acute surgical stress in sheep.**

Fell, L.R. ; Shutt, D.A. Amsterdam : Elsevier Science Publishers, B.V. Applied animal behaviour science. Apr 1989. v. 22 (3/4). p. 283-294. Includes references. (NAL Call No.: DNAL QL750.A6).

0011

**Biochemical indices of the blood of Hissar breed sheep at low temperatures (Temperature stress, Tadzhik SSR).**

Russian. Tukhtaev, T.M.ITOBA. ; Tairov, A.A.-Ingashev, T.A. Dushanbe : Akademiya. Akhboroti Akademii fankhoi RSS Tojikiston, shu'bai fankhoi biologi = Izvestiya Akademii nauk Tadzhikskoi SSR, otdelenie biologicheskikh nauk. Jan/Mar 1982. Jan/Mar 1982. (1). p. 96-97. Includes references. (NAL Call No.: 20 AK132).

0012

**Blood changes in lambs during the stress of fasting (Diet composition).**

Koenig, J.M. ; Boling, J.A. Lexington, The Station. Progress report - Kentucky. Agricultural Experiment Station. May 1980. May 1980. (248). p. 16-17. (NAL Call No.: 100 K41PR).

0013

**Blood flow changes in the testes of heat-stressed southdown rams / by Robert S. Sand. -**

Sand, Robert S. (Robert Sherman). 1941-. 1971. Thesis (Ph.D.)--University of Kentucky. 1971. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. ix, 87 leaves ; 21 cm. Bibliography: leaves

82-87. (NAL Call No.: DISS 71-25,915).

0014

**Blood glucose kinetics in whole body and mammary gland of lactating goats exposed to heat.**

JDSCAE, Sand, H. ; Ambo, K.-Tsuda, T. Champaign, Ill. : American Dairy Science Association. Journal of dairy science. Literature review. Oct 1985. v. 68 (10). p. 2557-2564. Includes 36 references. (NAL Call No.: DNAL 44.8 J822).

0015

**Cardiovascular responses to thermal stress in conscious goats.**

Feistkorn, G.JTBID. ; Jessen, C. Oxford : Pergamon Press. Journal of thermal biology. July 1983. v. 8 (3). p. 241-246. Includes references. (NAL Call No.: QP82.2.T4J6).

0016

**Catecholamine content of plasma and saliva in sheep exposed to psychological stress.**

HMMRA, Houpt, K.A. ; Kendrick, K.M.-Parrott, R.F.-De La Riva, C.F. Stuttgart, W. Ger. : Georg Thieme. Hormone and metabolic research = Hormon- und Stoffwechselforschung = Hormones et métabolisme. Mar 1988. v. 20 (3). p. 189-190. Includes references. (NAL Call No.: DNAL QP801.H7H65).

0017

**Causes of lamb deaths and some practical ways of reducing them (Heat stress, nutrition and husbandry factors).**

Stephenson, R.G.A. ; Edwards, J.C.-Pratt, M.S. Brisbane, Department of Primary Industries, Queensland agricultural journal. Sept/Oct 1980. v. 106 (5). p. 411-418. ill. (NAL Call No.: 23 Q33).

0018

**Central sympathetic control of uterine blood flow during acute heat stress (Ewes).**

Brown, D.E. ; Harrison, P.C. Champaign, Ill. : American Society of Animal Science. Journal of animal science. May 1981. v. 52 (5). p. 1114-1121. ill. 26 ref. (NAL Call No.: 49 J82).

0019

**Changes in circulating levels of iodothyronines, cortisol and endogenous thiocyanate in sheep during emotional stress caused by isolation of the animals from the flock.**

ZVRAA, Bobek, S. ; Niezgoda, J.-Pierzchala, K.-Litynski, P.-Sechman, A. Berlin, W. Ger. : Paul Parey. Journal of veterinary medicine : Series A = Zentralblatt für Veterinärmedizin : Reihe A. Nov 1986. v. 33 (9). p. 698-705. Includes references. (NAL Call No.: DNAL 41.8 Z5).

0020

**Changes in the cortisol responses of lambs to tail docking, castration and ACTH injection during the first seven days after birth.**

RV TSA, Mellor, D.J. ; Murray, L. London : British Veterinary Association.

Research in veterinary science. May 1989. v. 46 (3). p. 392-395. Includes references. (NAL Call No.: DNAL 41.8 R312).

0021

**Changes in weight and quality of lamb carcasses due to delayed slaughter (Stress).**

Andersson, O. Uppsala, Sveriges lantbruksuniversitet. Institutionen för husdjursförädling och sjukdomsgenetik rapport. 1978. 1978. (26). p. 17-26. ill. 7 ref. (NAL Call No.: SF83.U6U6).

0022

**Chronic heat stress and prenatal development in sheep. I. Conceptus growth and maternal plasma hormones and metabolites.**

JANSAG, Bell, A.W. ; McBride, B.W.-Slepetis, R.-Early, R.J.-Currie, W.B. Champaign, Ill. : American Society of Animal Science. Journal of animal science. Dec 1989. v. 67 (12). p. 3289-3299. Includes references. (NAL Call No.: DNAL 49 J82).

0023

**A comparison of the effects of electroimmobilisation and, or, shearing procedures on ovine plasma concentrations of beta-endorphin/beta-lipoprotein and cortisol.**

RV TSA, Jephcott, E.H. ; McMillen, I.C.-Rushen, J.P.-Thorburn, G.D. London : British Veterinary Association. Research in veterinary science. July 1987. v. 43 (1). p. 97-100. Includes references. (NAL Call No.: DNAL 41.8 R312).

0024

**Computer packages to predict the direct effects of cold on grazing animals.**

Donnelly, J.R. ; Freer, M. Sydney : Pergamon Press. Proceedings of the Australian Society of Animal Production. 1988. v. 17. p. 84-86. (NAL Call No.: DNAL 49.9 AU72).

0025

**Cross neutralization of maedi-visna virus stress.**

Hyllseth, B. ; Larsen, H.J. Luxembourg : Commission of the European Communities. 1985. Slow viruses in sheep, goats and cattle : in particular maedi visna, jaagsiekte, and in caprines, arthritis, encephalitis and pneumonitis : proceedings of two workshops / edited by J.M. Sharp and R. Hoff-Jorgensen. p. 173-174. Includes references. (NAL Call No.: DNAL SF780.4.S55 1985).

0026

**Dependence of capillary metabolism intensity from conditions of serotonin adsorption (Purebred rams, effect of stress). Russian.**

Ainson, Kh. ; Ainson, E. Tallinn : "Periodika". Toimetised - Eesti NSV Teaduste Akadeemia: bioloogia = Izvestiia Akademii nauk Estonskoi SSR: biologia. 1984. v. 33 (3). p. 177-186. Includes 38 references. (NAL Call No.: 442.9 AK18).

0027

**Development of a salivary cortisol method for detecting changes in plasma "free" cortisol arising from acute stress in sheep.**  
 AUVJA. Fell, L.R. ; Shutt, D.A.-Bentley, C.J. North Melbourne, Victoria : Australian Veterinary Association. Australian veterinary journal. Dec 1985. v. 62 (12). p. 403-406. 111. Includes references. (NAL Call No.: DNAL 41.8 AU72).

0028

**Direct effects of cold on grazing animals.**  
 Stevens, D. Sydney : Pergamon Press. Proceedings of the Australian Society of Animal Production. 1988. v. 17. p. 83-84. (NAL Call No.: DNAL 49.9 AU72).

0029

**Diseases and the showing.**  
 Williams, C.S.F. Newark, Del. : Cooperative Extension Service, University of Delaware, 1984. Goat extension handbook / George F.W. Haenlein, Donald L. Ace, editors. G-8, 3 p. 111. (NAL Call No.: DNAL SF383.G58).

0030

**Effect of a constant arterial CO2 (carbon dioxide) tension on respiratory pattern in heat-stressed sheep (Australia).**  
 Maskrey, M. ; Hales, J.R.S.-Fawcett, A.A. Bethesda, Md. : American Physiological Society. Journal of applied physiology: respiratory, environmental and exercise physiology. Feb 1981. v. 50 (2). p. 315-319. 30 ref. (NAL Call No.: 447.8 J825).

0031

**Effect of acute nonsurgical stress on fetal and maternal plasma glucose, glucagon and insulin concentration in sheep.**  
 Schreiner, R.L. ; Lemons, J.A.-Gresham, E.L.-Nolen, P.A.-Bohnke, R.A.-Reyman, D.S. Basel, S. Karger. Biology of the neonate. 1981. v. 39 (1/2). p. 86-90. 111. 17 ref. (NAL Call No.: QH301.B46).

0032

**The effect of artificial Eperythrozoon ovis infection on the growth rate of stressed and non-stressed sheep.**  
 AUVJA. Nicholls, T.J. ; Veale, P.I.-Overend, D. Brunswick, Victoria : Australian Veterinary Association. Australian veterinary journal. June 1989. v. 66 (6). p. 184-186. Includes references. (NAL Call No.: DNAL 41.8 AU72).

0033

**The effect of blood taking stress on some blood rate values in sheep. Der Einfluss Blutentnahmestress auf einige Blutmesswerte beim Schaf / vorgelegt von Gohary Said Gohary. -. GERMAN.**  
 Gohary, Gohary Said. Hannover (s.n.) 1978. English summary. 53 p. : 111. --. Bibliography: p. 43-53. (NAL Call No.: 41.2 H198 (1978 No.57)).

0034

**Effect of chronic heat load during pregnancy on birth weight, behaviour and body composition of Australian feral goat kids.**  
 TAHPA. Holmes, J.H.G. ; Prasetyo, S.-Miller, H.M.-Scheurmann, E.A. Edinburgh : Scottish Academic Press. Tropical animal health and production. Aug 1986. v. 18 (3). p. 185-190. Includes references. (NAL Call No.: DNAL SF601.T7).

0035

**The effect of different types of transportation on plasma cortisol and testosterone concentrations in male goats.**  
 BVJQA. Sannouri, A.A. ; Jones, R.S.-Dobson, H. London : Bailliere Tindall. British veterinary journal. Sept/Oct 1989. v. 145 (5). p. 446-450. Includes references. (NAL Call No.: DNAL 41.8 V643).

0036

**Effect of electroimmobilisation on ovine plasma concentrations of beta-endorphin/beta-lipotrophin, cortisol and prolactin.**  
 RVTSA. Jephcott, E.H. ; McMillen, I.C.-Rushen, J.-Hargreaves, A.-Thorburn, G.D. London : British Veterinary Association. Research in veterinary science. Nov 1986. v. 41 (3). p. 371-377. Includes references. (NAL Call No.: DNAL 41.8 R312).

0037

**Effect of heat stress on plasma concentrations of prolactin and luteinizing hormone in ewes.**  
 Hooley, R.D. ; Findlay, J.K. Stephenson, R.G.A. East Melbourne, Commonwealth Scientific and Industrial Research Organization. Australian journal of biological sciences. Apr 1979. v. 32 (2). p. 231-235. 111. 19 ref. (NAL Call No.: 442.8 AU72).

0038

**Effect of intraventricular serotonin on the plasma cortisol response to restraint stress in unanesthetized sheep.**  
 Frey, M.J. ; Moberg, G.P. Champaign, Ill. : American Society of Animal Science. Journal of animal science. Aug 1980. v. 51 (2). p. 380-385. 111. 10 ref. (NAL Call No.: 49 J82).

0039

**Effect of myiasis and acute restraint stress on plasma levels of immunoreactive beta-endorphin, adrenocorticotrophin (ACTH) and cortisol in the sheep.**  
 AUBSAM. Shutt, D.A. ; Smith, A.I.-Wallace, C.A.-Connell, R.-Fell, L.R. East Melbourne : Commonwealth Scientific and Industrial Research Organization. Australian journal of biological sciences. 1988. v. 41 (3). p. 297-301. Includes references. (NAL Call No.: DNAL 442.8 AU72).

0040

**The effect of prolonged stress on the hypothalamic luteinizing hormone-releasing hormone (LHRH) in the anoestrous ewe.**

EXCDS. Przekop, F. ; Polkowska, J.-Mateusiak, K. Leipzig, E. Ger. ; Johann Ambrosius Barth. Experimental and clinical endocrinology, 1988, v. 91 (3), p. 334-340. Includes references. (NAL Call No.: DNAL QP187.A1E53).

0041

**The effect of prolonged stress on the oestrous cycles and prolactin secretion in sheep.**

Przekop, F. ; Wolinska-Witort, E.-Mateusiak, K.-Sadowski, B.-Domanski, E. Amsterdam : Elsevier Scientific. Animal reproduction science, June 1984, v. 7 (4), p. 333-342, ill. Includes references. (NAL Call No.: QP251.A5).

0042

**Effect of repeated and prolonged stress stimuli on the plasma prolactin concentration in sheep.**

EXCDS. Wolinska-Witort, E. ; Przekop, F.-Mateusiak, K.-Domanski, E. Leipzig, E. Ger. ; Johann Ambrosius Barth. Experimental and clinical endocrinology, 1986, v. 87 (3), p. 265-276, ill. Includes references. (NAL Call No.: DNAL QP187.A1E53).

0043

**Effect of shearing on oestrus and ovulation in sheep.**

JASIB. Parr, R.A. ; Davis, I.F.-Tilbrook, A.J. Cambridge : Cambridge University Press. The Journal of agricultural science, Dec 1989, v. 113 (pt.3), p. 411-412. Includes references. (NAL Call No.: DNAL 10 J822).

0044

**Effect of stress due to laparoscopy on plasma cortisol levels, the preovulatory surge of LH (luteinizing hormone), and ovulation in the ewe.**

Martin, G.B. ; Oldham, C.M.-Lindsay, D.R. Los Altos, Calif., Geron-X. Theriogenology, July 1981, v. 16 (1), p. 39-44, ill. 11 ref. (NAL Call No.: QP251.A1T5).

0045

**Effect of stress during shearing on the LH response to GnRH in anoestrous ewes.**

JASIB. Dobson, H. Cambridge : Cambridge University Press. The Journal of agricultural science, June 1988, v. 110 (pt.3), p. 673-676. Includes references. (NAL Call No.: DNAL 10 J822).

0046

**The effect of stress on livestock and meat quality prior to and during slaughter (Cattle, pigs and sheep).**

Grandin, T. Washington, D.C., Institute for the Study of Animal Problems. International journal for the study of animal problems, Sept/Oct 1980, literature review, v. 1 (5), p. 313-337. Bibliography p. 331-337. (NAL Call No.: HV4701.I49).

0047

**Effect of thermal stress on protein for maintenance of lambs / by Dennis Ray Brink. -**

Brink, Dennis Ray. Ann Arbor, Mich. University Microfilms International, 1979. Thesis--Kansas State University, 1978. Facsimile produced by microfilm-xerography, v1, 46 leaves. Bibliography: leaves 40-45. (NAL Call No.: DISS 79-06,770).

0048

**Effect of water deprivation on blood and urine components of lactating sheep under semi-arid conditions (Stress).**

More, T. ; Sahni, K.L. New Delhi, Indian Council of Agricultural Research. The Indian journal of animal sciences, May 1980, v. 50 (5), p. 411-416, 24 ref. (NAL Call No.: 41.8 IN22).

0049

**Effects of acute preload and afterload stress on myocardial function in newborn and adult sheep.**

Berman, W.BNEOB. ; Christensen, D. Basel : S. Karger. Biology of the neonate, Jan/Feb 1983, v. 43 (1/2), p. 61-66. Includes references. (NAL Call No.: QH301.B46).

0050

**Effects of body condition and environmental stress on ovulation rate, embryo survival, and associated plasma follicle stimulating hormone, luteinizing hormone, prolactin and progesterone profiles in Scottish Blackface ewes.**

Rhind, S.M. ; Doney, J.M.-Gunn, R.G.-Leslie, I.D. Harlow : Longman. Animal production, Apr 1984, v. 38 (pt.2), p. 201-209, ill. Includes references. (NAL Call No.: 49 AN55).

0051

**Effects of cold environments on domestic animals.**

NASSD. Christopherson, R.J. ; Young, B.A. New York, N.Y. : Plenum Press. NATO advanced science institutes series : Series A : Life sciences. In the series analytic: Grazing research at northern latitudes / edited by D. Gudmundsson. Paper presented at a Workshop, August 5-10, 1985, Hvanneyri, Iceland.- Literature review, 1986, v. 108, p. 247-257. Includes references. (NAL Call No.: DNAL QH301.N32).

0052

**Effects of heat stress on serum progesterone in cyclic ewes and on progesterone and cortisol response to ACTH in ovariectomized ewes.**

JRPFA. Sheikheldin, M.A. ; Howland, B.E.-Palmer, W.M. Colchester : The Journal. Journal of reproduction and fertility, Nov 1988, v. 84 (2), p. 521-529. Includes references. (NAL Call No.: DNAL 442.8 J8222).

0053  
The effects of heat stress on the development of the foetal lamb.  
Hopkins, P.S. ; Nolan, C.J.-Pepper, P.M.  
Melbourne, Commonwealth Scientific and Industrial Research Organization.  
Australian journal of agricultural research. July 1980, v. 31 (4), p. 763-771. 111. 17 ref. (NAL Call No.: 23 AU783).

0054  
Effects of heat stress on the lactation performance of ewes accustomed to tropical conditions and the total fluid intake of their lambs.  
Stephenson, R.G.A. ; Hooley, R.D.-Hopkins, P.S. Melbourne, Commonwealth Scientific and Industrial Research Organization. Australian journal of biological sciences. Aug 1980, v. 33 (4), p. 449-456. 111. 21 ref. (NAL Call No.: 442.8 AU72).

0055  
The effects of sex, weight and stress on carcass composition, fatty acid variability and organoleptic evaluation of lamb / by John A. Jacobs. -  
Jacobs, John A. (John Allen). 1939-.  
1970. Thesis (Ph.D.)--University of Wyoming. 1970. Photocopy of typescript. Ann Arbor: University Microfilms. 1972. vii, 84 leaves : 21 cm. Bibliography: leaves (68)-76. (NAL Call No.: DISS 72-13.030).

0056  
Effects of stress on sexual behavior in sheep (Artificial insemination). Efectul stresului in comportamentul sexual la ovine.  
Barbura, T. ; Bogdan, A.T.-Salantiu, D.-Constantinescu, E.-Timen, S.  
Cluj-Napoca. (S.N.). 1980. Lucrarile sectiei de ameliorare si tehnologie de crestere la taurine si ovine / (colectiv de redactie Petre Adrian, Velea Constantin ; sef lucr. Morar Roman ; tehnoredactor: Sopa Sorin). Simpozionul "Probleme de Ameliorare, Tehnologie de Crestere si Patologie la Taurine si Ovine" 1979 : Cluj-Napoca, Romania. p. 284-288. (NAL Call No.: SF201.S53).

0057  
Effects of stress related hormones adrenaline and noradrenaline on energy expenditure of sheep.  
Graham, A.D. ; Christopherson, R.J. Edmonton, The Department. Annual feeders' day report - University of Alberta, Dept. of Animal Science. 1980. 1980. (59th). p. 63-64. 111. (NAL Call No.: SF1.A4).

0058  
Effects of tail docking and castration on behaviour and plasma cortisol concentrations in young lambs.  
RVSTA, Mellor, D.J. ; Murray, L. London : British Veterinary Association. Research in veterinary science. May 1989, v. 46 (3), p. 387-391. Includes references. (NAL Call No.: DNAL 41.8 R312).

0059  
Effects of thermal stress on plasma concentrations of luteinizing hormone, progesterone, prolactin and testosterone in the cycling ewe.  
Hill, T.G. ; Alliston, C.W. Los Altos, Calif., Geron-X. Theriogenology. Feb 1981, v. 15 (2), p. 201-209. Bibliography p. 207-209. (NAL Call No.: QP251.A1T5).

0060  
Energy metabolism and immune function.  
CTVSD, Verhagen, J.M.F. Dordrecht : Martinus Nijhoff Publishers. Current topics in veterinary medicine and animal science. In the series analytic: Energy metabolism in farm animals / edited by M.W.A. Verstegen and A.M. Henken. 1987, v. 44, p. 291-303. Includes references. (NAL Call No.: DNAL SF600.C82).

0061  
Experimental thermal stress and post-stress responses of sheep (Rambouillet X Chokla).  
Rai, A.K. ; Singh, M.-More, T. New Delhi : Indian Council of Agricultural Research. The Indian journal of animal sciences. Oct 1983, v. 53 (10), p. 1104-1106. Includes references. (NAL Call No.: 41.8 IN22).

0062  
Farm animals under the vivisector's knife.  
Mason, J. Chicago, Ill. : The Society. Bulletin--the National Anti-Vivisection Society. 1986. (2), p. 7-9. 18. 111. (NAL Call No.: DNAL HV4701.B8).

0063  
Gestation-dependent aspects of the response of the ovine fetus to the osmotic stress induced by maternal water deprivation.  
Bell, R.J. ; Congiu, M.-Hardy, K.J.-Wintour, E.M. Cambridge : Cambridge University Press. Quarterly journal of experimental physiology. Jan 1984, v. 69 (1), p. 187-195. Includes references. (NAL Call No.: 447.8 Q1).

0064  
Heart-rate and the behaviour of sheep in yards (Social stress, wethers).  
Syme, L.A. ; Elphick, G.R. Amsterdam : Elsevier. Applied animal ethology. Nov 1982, v. 9 (1), p. 31-35. Includes references. (NAL Call No.: QL750.A6).

0065  
Heat as a stress factor in herbivores under tropical conditions.  
Finch, V.A. Craighall, South Africa : Science Press. 1984. Herbivore nutrition in the subtropics and tropics / edited by F.M.C. Gilchrist and R.I. Mackie. Paper presented at the "International Symposium on Herbivore Nutrition in the Subtropics and Tropics," April 5-9, 1983, Pretoria. - Literature review. p. 89-105. Includes 76 references. (NAL Call No.: DNAL SF95.H39).

0066

**Heat load and heat dissipation in sheep and goats under environmental heat stress.**

Shebaita, M.K. ; El-Banna, I.M.  
Zagazig, Egypt? : The Society?, 1982? .  
Proceedings of the sixth International Conference on Animal and Poultry Production, held at University of Zagazig, Zagazig, Egypt, 21-23 September 1982 / Egyptian Society of Animal Production, v. 2 p. 459-469. Includes references. (NAL Call No.: DNAL SF5.I54 1982).

0067

**Heat stress.**

Roussel, J.D. Newark, Del. : Cooperative Extension Service, University of Delaware, 1984. Goat extension handbook / George F.W. Haenlein, Donald L. Ace, editors. F-11, 3 p. ill. Includes references. (NAL Call No.: DNAL SF383.G58).

0068

**Heat stress in Angora wether goats.**

AUVJA, McGregor, B.A. North Melbourne, Victoria : Australian Veterinary Association, Australian veterinary journal, Oct 1985, v. 62 (10), p. 349-350. Includes references. (NAL Call No.: DNAL 41.8 AU72).

0069

**Hypomagnesemia in ruminants.**

Hoffsis, G.F. ; Saint-Jean, G.-Rings, D.M. Lawrenceville, N.J. : Veterinary Learning Systems Company, The Compendium on continuing education for the practicing veterinarian, Apr 1989, v. 11 (4), p. 519-523, 526, ill. Includes references. (NAL Call No.: DNAL SF601.C66).

0070

**Indices of stress in housed experimental sheep (to determine the relations between glucose and lactate metabolism).**  
Reilly, P.E.B. ; Chandrasena, L.G. London, British Veterinary Association, Research in veterinary science, Sept 1979, v. 27 (2), p. 250-252, ill, 9 ref. (NAL Call No.: 41.8 R312).

0071

**Indirect selection.**

Haley, C.S. ; Cameron, N.D.-Slee, J.-Land, R.B. London : Butterworths, 1987. New techniques in sheep production / edited by I. Fayed M. Marai, J.B. Owen. Literature review, p. 113-123. Includes references. (NAL Call No.: DNAL SF375.N43).

0072

**The influence of blood sampling stress on blood values of sheep. Der Einfluss des Blutentnahmestresses auf Blutmesswerte des Schafes. GERMAN.**  
Gohary, G.S. ; Bickhardt, K. Hannover, Schaper, Deutsche tierärztliche Wochenschrift, June 5, 1979, v. 86 (6), p. 225-228, ill. Bibliography p. 228. (NAL Call No.: 41.8 D482).

0073

**Influence of heat stress on exercise-induced changes in regional blood flow in sheep.**

Bell, A.W.JARPD. ; Hales, J.R.S.-King, R.B.-Fawcett, A.A. Bethesda : American Physiological Society, Journal of applied physiology : respiratory, environmental and exercise physiology, Dec 1983, v. 55 (6), p. 1916-1923. Includes references. (NAL Call No.: 447.8 J825).

0074

**Influence of injection of alpha-blocking and beta-blocking agents on the muscle glycogenolysis during transport stress in lambs.**

Monin, G. ; Gire, P. Colorado Springs, Colo. : American Meat Science Association, 1980. Proceedings (of the) 26th European Meeting of Meat Research Workers / prepared by American Meat Science Association, p. 30-33. Includes references. (NAL Call No.: TS1955.E9 1980 V.1).

0075

**The influence of maternal nutritional stress on ewe performance and lamb growth and development.**

Vimini, R.J. ; Kemp, J.D.-Ely, D.G.-Deweese, W.P. Lexington, The Station, Progress report - Kentucky Agricultural Experiment Station, May 1982, May 1982, (262), p. 40-41. (NAL Call No.: 100 K41PR).

0076

**The influence of neonatal stress on the physiological and behavioral response of lambs during active-avoidance conditioning.**

Siegel, B.J. ; Moberg, G.P. New York, Academic Press, Hormones and behavior, June 1980, v. 14 (2), p. 136-145, ill, 20 ref. (NAL Call No.: QP901.H7H64).

0077

**Influence of prednisolone or cortisol injection on muscle glycogenolysis during transport stress in lambs.**

Gire, P. ; Monin, G. Colorado Springs, Colo. : American Meat Science Association, 1980. Proceedings (of the) 26th European Meeting of Meat Research Workers / prepared by American Meat Science Association, p. 34-37. Includes references. (NAL Call No.: TS1955.E9 1980 V.1).

0078

**Influences of cold exposure on digestion of organic matter, rates of passage of digesta in the gastrointestinal tract, and feeding and rumination behaviour in sheep given four forage diets in the chopped, or ground and pelleted form.**  
BJNUAV, Kennedy, P.M. Cambridge : Cambridge University Press, The British journal of nutrition, Jan 1985, v. 53 (1), p. 159-173. Includes references. (NAL Call No.: DNAL 389.8 B773).

0079

**An investigation into the aetiology of 'wool slip': alopecia in ewes which are housed and shorn in winter.**  
VETRAX, Morgan, K.L. ; Brown, P.J.-Wright, A.I.-Steele, F.C.-Baker, A.S. London : British Veterinary Association. The Veterinary record. Dec 20/27, 1986. v. 119 (25/26). p. 621-625. 111. Includes references. (NAL Call No.: DNAL 41.8 V641).

0080

**Lack of peripheral sympathetic control of uterine blood flow during acute heat stress (Sheep).**  
Brown, D.E. ; Harrison, P.C. Champaign, Ill. : American Society of Animal Science. Journal of animal science. July 1984. v. 59 (1). p. 182-188. Includes references. (NAL Call No.: 49 J82).

0081

**Lamb cold stress in lambing sheds.**  
Dixon, J.E. ; Olson, D.P.-Fitzgerald, J.A. St. Joseph, Mich. : The Society. American Society of Agricultural Engineers (Microfiche collection). Paper presented at the 1987 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1987. (fiche no. 87-4517). 18 p. Includes references. (NAL Call No.: DNAL FICHE S-72).

0082

**Levels of prostaglandin F2 alpha in ewe blood serum during the estrous cycle, pregnancy and following heat-stress / by Bhagwan Singh.**  
Singh, Bhagwan, 1939-. 1975. Thesis (Ph.D.)--University of Kentucky, 1975. Photocopy. Ann Arbor, Mich. : University Microfilms International, 1979. vii, 109 leaves ; 21 cm. Bibliography: leaves 97-109. (NAL Call No.: DISS 75-26,480).

0083

**A look at railroad livestock transportation.**  
Gatzke, R. Davie, Fla. : The Association. 1979. Proceedings 5th international meeting Animal Air Transportation Association, Inc., Hotel Washington, Washington, D.C., October 29-November 1, 1979. p. 31-34. (NAL Call No.: DNAL TL720.7.A5 1979).

0084

**Lowered ewe feed intake and ovine fetal dwarfing (Heat stress, lamb birth weights and survival rates).**  
Brown, D.E. ; Harrison, P.C. Urbana-Champaign, Ill. : Illinois Agricultural Experiment Station. DSAC, Dixon Springs Agricultural Center. Jan 1979. Jan 1979. (7). p. 194-195. 111. 2 ref. (NAL Call No.: St.D5).

0085

**Magnesium and glucose metabolism in sheep exposed to cold stress.**  
Terashima, Y. ; Tucker, R.E.-Deetz, L.E.-Muntifering, R.E.-Mitchell, G.E. Jr. Tokyo, Japan : Japanese Society of Zootechnical Science, 1983. New strategies for improving animal production for human welfare : proceedings / the Fifth World Conference on Animal Production, August 14-19, 1983. v. 2 p. 383-384. Includes references. (NAL Call No.: DNAL SF5.W6 1983).

0086

**Mechanism of anti-stress action of chloromazine hydrochloride (Effect on electric activity of the brain, behavior and digestive system of sheep).** Russian. Meshcheriakov, F.A. Stavropol' : Institut. Nauchnye trudy - Stavropol'skii sel'skokhoziaistvennyi institut. 1981. v. 44 (pt.2). p. 95-97. (NAL Call No.: 106 ST27).

0087

**Modification of the responses of sheep to isolation stress by the use of mirror panels.**  
Parrott, R.F. ; Houpt, K.A.-Misson, B.H. Amsterdam : Elsevier Science Publishers B.V. Applied animal behaviour science. May 1988. v. 19 (3/4). p. 331-338. Includes references. (NAL Call No.: DNAL QL750.A6).

0088

**Muscle glycogen level, transport stress and ultimate pH (hydrogen-ion concentration) of mutton (Lambs before and after slaughter). Taux de glycogene musculaire, stress de transport et pH ultime de la viande chez le mouton.** FRENCH.  
Gire, P. ; Monin, G. Paris, Institut national de la recherche agronomique. Annales de technologie agricole. 1979. v. 28 (4). p. 433-444. 111. 18 ref. (NAL Call No.: 14 F8499AN).

0089

**New Zealand condemns sheep to suffering & painful death.**  
Long, C. Petersfield Hampshire : Compassion in World Farming. Agscience : news & comments on agriculture and the environment. Nov 1985. (81). p. 2-3. 111. (NAL Call No.: DNAL HV4804.A3A4).

0090

**Nitrogen transformations and duodenal amino acid content in sheep given four forage diets and exposed to warm and cold ambient temperatures.**  
CNJNA, Kennedy, P.M. ; Early, R.J.-Christopherson, R.J.-Milligan, L.P. Ottawa : Agricultural Institute of Canada. Canadian journal of animal science. Dec 1986. v. 66 (4). p. 951-957. Includes references. (NAL Call No.: DNAL 41.8 C163).

0091

**Note on certain biochemical responses of sheep and goats exposed to thermal stress.**

More, T. ; Rai, A.K.-Singh, M. New Delhi. Indian Council of Agricultural Research. The Indian journal of animal sciences. Nov 1980. v. 50 (11). p. 1012-1014. 13 ref. (NAL Call No.: 41.8 IN22).

0092

**The nutrition of camels and sheep under stress.**

Farid, M.F.A. ; Shawket, S.M.-Abdel-Rahman, M.H.A. Uppsala ; Scandinavian Institute of African Studies. c1984-c1985. The Camelid : an all-purpose animal / editors, W. Ross Cockrill. Paper presented at the "Khartoum Workshop on Camels." December 1979, Khartoum, Sudan. v. 1 p. 293-322. Includes references. (NAL Call No.: DNAL SF401.C2K48 1979).

0093

**Observations on the effects of management stress on beta-mannosidase activity in goats.**

AUVJA. Mason, R.W. Brunswick, Victoria ; Australian Veterinary Association. Australian veterinary journal. Oct 1986. v. 63 (10). p. 339-340. Includes references. (NAL Call No.: DNAL 41.8 AU72).

0094

**Observations on the stressor potentials of metabolism units.**

BAHAD. Smith, O.B. ; Van Houtert, M.F.J.-Jansen, H.J. Nairobi ; Inter-African Bureau for Animal Resources. Bulletin of animal health and production in Africa = Bulletin de la sante et de la production animales en Afrique. Dec 1988. v. 36 (4). p. 376-379. ill. Includes references. (NAL Call No.: DNAL 41.8 B872).

0095

**Ontogeny of the adrenal and behavioral responses of lambs to emotional stress.**

Moberg, G.P. ; Anderson, C.D.-Underwood, T.R. Champaign, Ill. ; American Society of Animal Science. Journal of animal science. July 1980. v. 51 (1). p. 138-142. ill. 8 ref. (NAL Call No.: 49 J82).

0096

**Parasites as stressors: plasma cortisol responses of goats infected with the stomach worm Haemonchus contortus to exogenous corticotropin (ACTH).**

VPARD. Frandsen, J.C. Amsterdam ; Elsevier Science Publishers B.V. Veterinary parasitology. Jan 1987. v. 23 (1/2). p. 43-49. Includes references. (NAL Call No.: DNAL SF810.V4).

0097

**Pattern of cortisol release in sheep following administration of synthetic ACTH or imposition of various stressor agents.**

Fulkerson, W.J. ; Jamieson, P.A. Melbourne. Commonwealth Scientific and Industrial Research Organization.

Australian journal of biological sciences. 1982. v. 35 (2). p. 215-222. Includes 1 p. ref. (NAL Call No.: 442.8 AU72).

0098

**Performance of crossbred weaner lambs under hot environmental conditions.**

IJASA4. Karim, S.A. ; Singh, M.-Rai, A.K. New Delhi ; Indian Council of Agricultural Research. The Indian journal of animal sciences. Nov 1984. v. 54 (11). p. 1087-1090. ill. Includes references. (NAL Call No.: DNAL 41.8 IN22).

0099

**Perinatal and post-shearing losses in sheep.**

Lynch, J.D. Indooroopilly, QLD ; Australian Veterinary Association (Queensland Division). 1985. Grazing Animal Welfare Symposium : proceedings of a symposium held at the Bardonia Professional Development Centre, Brisbane, on April 26th and 27th, 1985 / editors: Brian L. Moore and Peter J. Chenoweth. p. 83-94. Includes references. (NAL Call No.: DNAL SF85.4.A9G72 1985).

0100

**Physiological and endocrinological reactions to cold stress in the Angora goat.**

Wentzel, D. ; Viljoen, K.S.-Botha, L.J.J. Pretoria, South Africa. Dept. of Agricultural Technical Services. Agroanimalia. = Animal sciences. June 1979. v. 11 (2). p. 19-22. 7 ref. (NAL Call No.: SF1.L32).

0101

**Plasma magnesium and glucose responses to cold exposure and potassium chloride administration in ruminants fed a magnesium-deficient diet (Crossbred wethers, stress, hypomagnesemia).**

Terashima, Y. ; Tucker, R.E.-Deetz, L.E.-Muntifering, R.B.-Mitchell, G.E. Jr. Lexington, Ky., The Station. Progress report - Kentucky Agricultural Experiment Station. July 1982. July 1982. (265). p. 43-44. (NAL Call No.: 100 K41PR).

0102

**Plasma magnesium levels as influenced by cold exposure in fed or fasted sheep (Hypomagnesemia, cold stress, fasting).**

Terashima, Y. ; Tucker, R.E.-Deetz, L.E.-Degregorio, R.M.-Muntifering, R.B.-Mitchell, G.E. Jr. Bethesda, American Institute of Nutrition. The Journal of nutrition. Oct 1982. v. 112 (10). p. 1914-1920. 26 ref. (NAL Call No.: 389.8 J82).

0103

**Plotting a better future for lambs: a practical guide to providing shade (Heat stress reduction, sheep production, Tamarix articulata, Queensland).**

Roberts, G. Brisbane ; Department of Primary Industries. Queensland agricultural journal. Jan/Feb 1984. v. 110 (1). p. 25-26. ill. (NAL Call No.: 23 Q33).

Q104

Postnatal mortality, bodyweight gain and wool production to two years of age of lambs surviving caesarean or stressful vaginal birth.

Haughey, K.G. Antarmen, N.S.W., Australian Veterinary Association. Australian veterinary journal. May 1982. v. 58 (5). p. 173-180. Includes 2 p. ref. (NAL Call No.: 41.8 AU72).

Q105

Preparation and handling of sheep before and during ship transportation.

Grandin, T. Fort Washington, Md. : The Animal Air Transportation Association. Proceedings of the ... International Conference of the Animal Air Transportation Association. Apr 24/26, 1984. (10th). p. 116-126. 111. Includes references. (NAL Call No.: DNAL TL720.7.A5).

Q106

Protection of recently shorn sheep against adverse weather using plastic coats.

AUVJA. Ellis, T. ; Bradley, A.-Watson, F.-Elliot, K.-Smith, G.-McGrath, M.-Dolling, M. North Melbourne, Victoria : Australian Veterinary Association. Australian veterinary journal. July 1985. v. 62 (7). p. 213-218. Includes references. (NAL Call No.: DNAL 41.8 AU72).

Q107

Protein-induced changes in the response of plasma cortisol of lambs to heat stress.

AVASA. Ghani, F.M.A. Budapest : Akademiai Kiado. Acta veterinaria Hungarica. 1988. v. 36 (3/4). p. 257-264. Includes references. (NAL Call No.: DNAL 41.8 AC83).

Q108

The reactions of pulsation and respiration rate in different breeds of sheep under standardized psychic and physical stress situations. Die Reaktionen von Puls und Atemfrequenzen verschiedener Schafrassen auf standardisierte psychische und physische Stressereignisse. GERMAN.

Hartmann, W. ; Jatsch, D. Stuttgart. Verlag Eugen Ulmer. Zuchtungskunde. July/Aug 1978. v. 50 (4). p. 317-330. 111. 13 ref. (NAL Call No.: 49 Z8).

Q109

Reasons for ill-health and mortality during live sheep exports.

Richards, R.B. ; Norris, R.T.-McQuade, N.C. Sydney : Pergamon Press. Proceedings of the Australian Society of Animal Production. 1986. v. 16. p. 42-43. (NAL Call No.: DNAL 49.9 AU72).

Q110

Redistribution of cardiac output and skin AVA (arteriovenous anastomoses) activity in sheep during exercise and heat stress.

Hales, J.R.S. ; Bell, A.W.-Fawcett, A.A.-King, R.B. Oxford, Eng. : Pergamon Press. Journal of thermal biology. Apr 1984. v. 9 (1/2). p. 113-116. 111.

Includes references. (NAL Call No.: QP82.2.T4J6).

Q111

Reducing transportation stresses (Cattle, sheep).

Grandin, T. Colorado : Westview Press. Sheep and goat handbook. 1982. v. 3. p. 279-289. 111. 3 p. ref. (NAL Call No.: SF371.543).

Q112

Reduction of the effects of heat stress on lamb birth weight and survival by provision of shade.

Stephenson, R.G.A. ; Suter, G.R.-Le Feuvre, A.S. Cambridge : Cambridge University Press. 1984. Reproduction in sheep : Australian Wool Corporation technical publication / supervising editors, D.R. Lindsay and D.T. Pearce. p. 223-225. Includes references. (NAL Call No.: DNAL SF768.2.S5R4E).

Q113

Release reflex of oxytocin and catecholamines at the time of milking ewes and goats.

Dyusembin, Kh. Valladolid : Sever-Cuesta. 1984. III Symposium Internacional de Ordeno Mecanico de Pequenos Ruminantes : Valladolid (Espana). Mayo 1983 / edita: Comité Espanol III Symposium Internacional de Ordeno Mecanico de Pequenos Ruminantes. Paper presented at the "3rd International Symposium on Machine Milking of Small Ruminants." May 1983. Valladolid, Spain. p. 81-86. Includes references. (NAL Call No.: DNAL SF249.S9 1983).

Q114

Reproduction and adaptation characteristics in D'man sheep.

Lehtou-Kassi, A. ; Beniamini, S.-Boukiliq, R.-Tibary, A.-Boujenane, I. Helsinki : The Scientific Agricultural Society of Finland. Journal of agricultural science in Finland : Maataloustieteellinen aikakauskirja. Paper presented at the "Symposium on Experiments with Finnsheep and Prolificacy in Sheep." July 1, 1988. Helsinki, Finland. 1988. v. 60 (6). p. 566-575. Includes references. (NAL Call No.: DNAL S16.F5J68).

Q115

Research with Barbados Blackbelly sheep in North Carolina.

Goode, L. ; Yazwinski, T.A.-Moncol, D.J.-Linnerud, A.C.-Morgan, G.W.-Tugman, D.F. Boulder, Colo. : Westview Press. 1983. Hair sheep of western Africa and the Americas : a genetic resource for the tropics / edited by H.A. Fitzhugh and G.E. Bradford. p. 257-274. (NAL Call No.: DNAL SF373.H17H37).

Q116

Responses.

CNVJA. Olson, D.P. ; Parker, C.F.-LeaMaster, B.R.-Dixon, J.E. Ottawa : Canadian Veterinary Medical Association. The Canadian veterinary journal = La Revue veterinaire canadienne. Apr 1987. v. 28 (4). p.

181-186. i11. Includes references. (NAL Call No.: DNAL 41.8 R3224).

O117

**The role of endorphins in the response to stress in sheep and cattle.**  
Shutt, D.A. ; Fell, L.R. Sydney : Pergamon Press. Proceedings of the Australian Society of Animal Production. 1988. v. 17. p. 338-341. Includes references. (NAL Call No.: DNAL 49.9 AU72).

O118

**Ruminant heat stress: effect on production and means of alleviation (Temperature, cooling, shades, evaporation, cattle and lambs).**  
Morrison, S.R. JANSAG. Champaign : American Society of Animal Science. Journal of animal science. Dec 1983. Paper presented at the Symposium on the Effect of Environmental Extremes on Ruminant Requirements. Guelph, Ontario. August 11, 1982. v. 57 (6). p. 1594-1600. i11. Includes references. (NAL Call No.: 49 JB2).

O119

**Salivary cortisol and behavioural indicators of stress in sheep.**  
Fell, L.R. ; Shutt, D.A. Sydney : Pergamon Press. Proceedings of the Australian Society of Animal Production. 1988. v. 17. p. 186-189. Includes references. (NAL Call No.: DNAL 49.9 AU72).

O120

**The scientific assessment of animal welfare.**  
Broom, D.M. Amsterdam : Elsevier Science Publishers. B.V. Applied animal behaviour science. Paper presented at the "Symposium on Animal Bio-ethics and Applied Ethology." August 1987. Montreal, Canada. July 1988. v. 20 (1/2). p. 5-19. Includes references. (NAL Call No.: DNAL QL750.A6).

O121

**Sheep production and management in a hot-humid climate.**  
Boyd, L.H. Morilton, Ark. : Winrock International. 1985. Emerging technology and management for ruminants : 1985 livestock seminars. International Stockmen's School / edited by Frank H. Baker and Mason E. Miller. p. 400-405. Includes references. (NAL Call No.: DNAL SF191.2.I68).

O122

**Shipping without stress: minimize the hazards (Goats, transporting).**  
Grant, K. Waterloo, Wis. : Countryside Publications. Dairy goat guide. Jan 1984. v. 7 (1). p. 18. (NAL Call No.: SF380.D25).

O123

**Some aspects of placental function in chronically heat-stressed ewes.**  
JDPHD. Bell, A.W. ; Wilkening, R.B.-Meschia, G. Oxford, Eng. : Oxford University Press. Journal of developmental physiology. Feb 1987. v. 9 (1). p. 17-29. Includes references. (NAL

Call No.: DNAL QP1.J62).

O124

**Stress factors influencing live and carcass weight in lamb.**  
Uppsala, Sveriges lantbruksuniversitet. Institutionen for husdjursforadling och sjukdomsgenetik rapport. 1978. 1978. (26). 26 p. i11. 30 ref. (NAL Call No.: SF83.U6U6).

O125

**Stress-induced changes in plasma concentrations of immunoreactive beta-endorphin and cortisol in response to routine surgical procedures in lambs.**  
AUBSAM. Shutt, D.A. ; Fell, L.R.-Connell, R.-Bell, A.K.-Wallace, C.A.-Smith, A.I. East Melbourne : Commonwealth Scientific and Industrial Research Organization. Australian Journal of biological sciences. 1987. v. 40 (1). p. 97-103. Includes references. (NAL Call No.: DNAL 442.8 AU72).

O126

**Stress or acute adrenocorticotrophin treatment suppresses LHRH-induced LH release in the ram.**  
JRPFA. Matteri, R.L. ; Watson, J.G.-Moberg, G.P. Colchester : Journal of Reproduction and Fertility. Journal of reproduction and fertility. Nov 1984. v. 72 (2). p. 385-393. Includes references. (NAL Call No.: DNAL 442.8 JB222).

O127

**Stress reactions of sheep to maintenance conditions Russian.**  
Lankin, V.ZHIVA. Moskva : Izdatel'stvo "Kolos". Zhivotnovodstvo. May 1981. May 1981. (5). p. 30-33. (NAL Call No.: 49 Z6).

O128

**Stress responses in lambs docked and castrated surgically or by the application of rubber rings.**  
AUVJA. Shutt, D.A. ; Fell, L.R.-Connell, R.-Bell, A.K. Brunswick, Victoria : Australian Veterinary Association. Australian veterinary journal. Jan 1988. v. 65 (1). p. 5-7. Includes references. (NAL Call No.: DNAL 41.8 AU72).

O129

**"Stress syndrome" in small ruminants (sheep) in connection with transport by sea. "Stress-syndromet" hos mindre drovtyggere (far) i forbindelse med sovaerts transporter. DANISH.**  
Christensen, E. Kobenhavn, Danske Dyrlaegeforening. Dansk veterinaraetidsskrift. May 1, 1979. v. 62 (9). p. 456-461. 9 ref. (NAL Call No.: 41.9 D23).

O130

**Suffering of millions of sheep on floating death ships from Australia and New Zealand continues; protests needed for ban on shipments.**  
Clarks Summit, Pa. : The Society. International Society for Animal Rights report. Sept 1986. p. 1. i11. (NAL Call No.: DNAL HV4701.I57).

0131

**Suppressed peripheral blood lymphocyte blastogenesis in pre- and postpartal sheep by chronic heat-stress, and suppressive property of heat-stressed sheep serum on lymphocytes.**

DCIMD. Niwano, Y. ; Becker, B.A.-Mittra, R.-Caldwell, C.W.-Abdalla, E.B.-Johnson, H.D. Elmsford, N.Y. ; Pergamon Press. Developmental and comparative immunology. Winter 1990. v. 14 (1). p. 139-149. Includes references. (NAL Call No.: DNAL QR180.D4).

0132

**Tenderness of exercise-stressed lambs (Carcasses, meat quality, pH values, New Zealand).**

Chrystall, B.B.NEZFA. ; Devine, C.E.-Snodgrass, M.-Ellery, S. Wellington ; Dept. of Scientific and Industrial Research. New Zealand journal of agricultural research. 1982. v. 25 (3). p. 331-336. ill. Includes references. (NAL Call No.: 23 N4892).

0133

**The thermal environment and the ruminant digestive system.**

Christopherson, R.J. Boca Raton, Fla. ; CRC Press. c1985. Stress physiology in livestock / editor, Mohamed K. Yousef. Literature review. v. 1 p. 163-180. ill. Includes 81 references. (NAL Call No.: DNAL SF768.S77).

0134

**Use of salivary cortisol as an indicator of stress due to management practices in sheep and calves.**

Fell, L.R. ; Shutt, D.A. Sydney ; Pergamon Press. Proceedings of the Australian Society of Animal Production. 1986. v. 16. p. 203-206. Includes references. (NAL Call No.: DNAL 49.9 AU72).

0135

**The value of urine osmolality as an index of stress in the ovine fetus.**

JDPHD. Wintour, E.M. ; Bell, R.J.-Congut, M.-MacIsaac, R.J.-Wang, X. Oxford, Eng. ; Oxford University Press. Journal of developmental physiology. Oct 1985. v. 7 (5). p. 347-354. Includes references. (NAL Call No.: DNAL QP1.U62).

0136

**Weather and lamb mortality in a commercial lowland sheep flock (Effect of cold stress on pastures, Berkshire, Great Britain).**

Starr, J.R. Amsterdam, Elsevier. Agricultural meteorology. Aug 1981. v. 24 (4). p. 237-252. ill., map. 21 ref. (NAL Call No.: 340.8 AG8).

0137

**Weight losses and repeated weighing in lambs (Live and carcass weight, stress).**

Danelius, K. Uppsala, Sveriges lantbruksuniversitet. Institutionen for husdjursforadling och sjukdomsgenetik rapport. 1978. 1978. (26). p. 1-16. ill. 23 ref. (NAL Call No.: SF83.U6U6).

0138

**What causes disease in dairy goats? (Stress, microorganisms).**

Jackson, R.A. ; Hall, A.G. Waterloo, Wis., Countryside Publications. Dairy goat guide. Apr 1982. v. 5 (4). p. 19-21. (NAL Call No.: SF380.D25).

0139

**Winter mortality of Dall sheep, Ovis dalli dalli, in Kluane National Park, Yukon.**

CAFNA. Burles, D.W. ; Hoefs, M. Ottawa ; Ottawa Field-Naturalists' Club. The Canadian field-naturalist. Oct/Dec 1984. v. 98 (4). p. 479-484. ill., maps. Includes 17 references. (NAL Call No.: DNAL 410.9 OT8).

Ainson, E. 26  
 Ainson, Kh. 26  
 AJBSAM. 39, 125  
 Alexander, G.I. 4  
 Alliston, C.W. 59  
 Ambo, K.-Tsuda, T. 14  
 Anderson, C.D.-Underwood, T.R. 95  
 Andersson, O. 21  
 AUVJA. 27, 32, 68, 93, 106, 128  
 AVASA. 107  
 BAHAD. 94  
 Barbura, T. 56  
 Becker, B.A.-Mittra, R.-Caldwell,  
 C.W.-Abdalla, E.B.-Johnson, H.D. 131  
 Bell, A.W. 22, 123  
 Bell, A.W.-Fawcett, A.A.-King, R.B. 110  
 Bell, A.W.-JARPD. 73  
 Bell, R.J. 63  
 Bell, R.J.-Congui, M.-MacIsaac,  
 R.J.-Wang, X. 135  
 Benlamlil, S.-Bouklil, R.-Tibary,  
 A.-Boujenane, I. 114  
 Berman, W.-BNEOB. 49  
 Bickhardt, K. 72  
 BJNUAV. 78  
 Bobek, S. 19  
 Bogdan, A.T.-Salantiu,  
 D.-Constantinescu, E.-Timen, S. 56  
 Boling, J.A. 12  
 Borghese, A. 9  
 Boyd, L.H. 121  
 Bradley, A.-Watson, F.-Elliott,  
 K.-Smith, G.-McGrath, M.-Dolling, M.  
 106  
 Brink, Dennis Ray. 47  
 Broom, D.M. 120  
 Brown, D.E. 18, 80, 84  
 Brown, P.J.-Wright, A.I.-Steele,  
 F.C.-Baker, A.S. 79  
 Burles, D.W. 139  
 BVJQA. 35  
 CAFNA. 139  
 Cameron, N.D.-Slee, J.-Land, R.B. 71  
 Campbell, J.B. 8  
 Chandrasena, L.G. 70  
 Christensen, D. 49  
 Christensen, E. 129  
 Christopherson, R.J. 5, 6, 51, 57, 133  
 Christopherson, R.J.-Early, R.J. 7  
 Chrystall, B.B. 3  
 Chrystall, B.B.-NEZFA. 132  
 CJZDAG. 1  
 CNUNA. 6, 7, 90  
 CNVJA. 116  
 Congiu, M.-Hardy, K.J.-Wintour, E.M. 63  
 CTVSD. 60  
 Darelilus, K. 137  
 Davis, I.F.-Tilbrook, A.J. 43  
 DCIMD. 131  
 Devine, C.E.-Davey, C.L.-Kinton, A.H. 3  
 Devins, C.E.-Snodgrass, M.-Ellery, S.  
 132  
 Dixon, J.E. 81  
 Dobson, H. 45  
 Doney, J.M.-Gunn, R.G.-Leslie, I.D. 50  
 Donnelly, J.R. 24  
 Dyusembin, Kh. 113  
 Early, R.J.-Christopherson,  
 R.J.-Milligan, L.P. 90  
 Edwards, J.C.-Pratt, M.S. 17  
 El-Banna, I.M. 66  
 Ellis, T. 106  
 Elphick, G.R. 64  
 EXCEDS. 40, 42  
 Farid, M.F.A. 92  
 Feistkorn, G.-JBID. 15  
 Fell, L.R. 10, 27, 117, 119, 134  
 Fell, L.R.-Connell, R.-Bell, A.K. 128  
 Fell, L.R.-Connell, R.-Bell,  
 A.K.-Wallace, C.A.-Smith, A.I. 125  
 Finch, V.A. 65  
 Findlay, J.K. Stephenson, R.G.A. 37  
 Frandsen, J.C. 96  
 Freer, M. 24  
 Frey, M.J. 38  
 Fulkerson, W.J. 97  
 Gatzke, R. 83  
 Ghani, F.M.A. 107  
 Gire, P. 74, 77, 88  
 Gohary, G.S. 72  
 Gohary, Gohary Said. 33  
 Goode, L. 115  
 Graham, A.D. 57  
 Grandin, T. 2, 46, 105, 111  
 Grant, K. 122  
 Hales, J.R.S. 110  
 Hales, J.R.S.-Fawcett, A.A. 30  
 Hales, J.R.S.-King, R.B.-Fawcett, A.A.  
 73  
 Haley, C.S. 71  
 Hall, A.G. 138  
 Harlow, H.J. 1  
 Harrison, P.C. 18, 80, 84  
 Hartmann, W. 108  
 Haughey, K.G. 104  
 Hill, T.G. 59  
 HMMRA. 16  
 Hoefs, M. 139  
 Hoffsis, G.F. 69  
 Holmes, J.H.G. 34  
 Hookey, R.D. 37  
 Hookey, R.D.-Hopkins, P.S. 54  
 Hopkins, P.S. 53  
 Houpt, K.A. 16  
 Houpt, K.A.-Misson, B.H. 87  
 Howland, B.E.-Palmer, W.M. 52  
 Hyllsseth, B. 25  
 IJASA4. 98  
 Jackson, R.A. 138  
 Jacobs, John A.-John Allen.- 1939-. 55  
 Jamieson, P.A. 97  
 JANSAG. 22  
 JASIAS. 43, 45  
 Jatsch, D. 108  
 JDPHD. 123, 135  
 JDSCAE. 14  
 Jephcott, E.H. 23, 36  
 Jessen, C. 15  
 Jones, R.S.-Dobson, H. 35  
 JRPFA. 52, 126  
 Karim, S.A. 98  
 Kelly, J.M. 5, 6, 7  
 Kemp, J.D.-Ely, D.G.-Deweese, W.P. 75  
 Kendrick, K.M.-Parrott, R.F.-De La Riva,  
 C.F. 16  
 Kennedy, P.M. 78, 90  
 Koenig, J.M. 12  
 Lahlou-Kassi, A. 114  
 Lankin, V.-ZHIVA. 127  
 Larsen, H.J. 25  
 Lemons, J.A.-Gresham, E.L.-Nolen,  
 P.A.-Bohnke, R.A.-Reyman, D.S. 31  
 Long, C. 89  
 Lynch, J.J. 99  
 Martin, G.B. 44  
 Maskrey, M. 30  
 Mason, J. 62  
 Mason, R.W. 93  
 Matteri, R.L. 126  
 McBride, B.W.-Slepetis, R.-Early,  
 R.J.-Currie, W.B. 22  
 McGregor, B.A. 68  
 McMillen, I.C.-Rushen, J.-Hargreaves,  
 A.-Thorburn, G.D. 36  
 McMillen, I.C.-Rushen, J.P.-Thorburn,  
 G.D. 23

Mellor, D.J. 20, 58  
Meshcheriakov, F.A. 86  
Moberg, G.P. 38, 76, 95  
Monin, G. 74, 77, 88  
More, T. 48, 91  
Morgan, K.L. 79  
Morrison, S.R.-JANSAG. 118  
Murray, L. 20, 58  
NASSD. 51  
Nicholls, T.J. 32  
Niezgoda, J.-Pierzchala, K.-Litynski,  
P.-Sechman, A. 19  
Niwano, Y. 131  
Nolan, C.J.-Pepper, P.M. 53  
Norris, R.T.-McQuade, N.C. 109  
Oldham, C.M.-Lindsay, D.R. 44  
Olson, D.P. 116  
Olson, D.P.-Fitzgerald, J.A. 81  
Parker, C.F.-LeaMaster, B.R.-Dixon, J.E.  
116  
Parr, R.A. 43  
Parrott, R.F. 87  
Polkowska, J.-Mateusiak, K. 40  
Prasetyo, S.-Miller, H.M.-Scheurmann,  
E.A. 34  
Przekop, F. 40, 41  
Przekop, F.-Mateusiak, K.-Domanski, E.  
42  
Rai, A.K. 61  
Rai, A.K.-Singh, M. 91  
Reilly, P.E.B. 70  
Rhind, S.M. 50  
Richards, R.B. 109  
Roberts, G. 103  
Roussel, J.D. 67  
RVISA. 20, 23, 36, 58  
Sahni, K.L. 48  
Saint-Jean, G.-Rings, D.M. 69  
Sand, Robert S.- Robert Sherman, ~ 1941-  
13  
Sanhoury, A.A. 35  
Sano, H. 14  
Schreiner, R.L. 31  
Shawket, S.M.-Abdel-Rahman, M.H.A. 92  
Shebaita, M.K. 66  
Sheikheldin, M.A. 52  
Shutt, D.A. 10, 39, 117, 119, 125, 128,  
134  
Shutt, D.A.-Bentley, C.J. 27  
Siegel, B.J. 76  
Singh, Bhagwan, ~ 1939-. 82  
Singh, M.-More, T. 61  
Singh, M.-Rai, A.K. 98  
Smith, A.I.-Wallace, C.A.-Connell,  
R.-Fell, L.R. 39  
Smith, D.B. 94  
Starr, J.R. 136  
Stephenson, R.G.A. 17, 54, 112  
Stevens, D. 28  
Suter, G.R.-Le Feuvre, A.S. 112  
Syme, L.A. 64  
TAHPA. 34  
Tairov, A.A.-Irgashev, T.A. 11  
Terashima, Y. 85, 101, 102  
Thorne, E.T.-Williams, E.S.-Belden,  
E.L.-Gern, W.A. 1  
Tucker, R.E.-Deetz, L.E.-Degregorio,  
R.M.-Muntifering, R.B.-Mitchell, G.E.  
Jr. 102  
Tucker, R.E.-Deetz, L.E.-Muntifering,  
R.B.-Mitchell, G.E. Jr. 85, 101  
Tukhtaev, T.M.-ITOBA. 11  
UAABB. 5  
Van Houtert, M.F.J.-Jansen, H.J. 94  
Veale, P.I.-Overend, D. 32  
Verhagen, J.M.F. 60  
VETRAX. 79  
Viljoen, K.S.-Botha, L.J.J. 100  
Vimini, R.J. 75  
VPARD. 96  
Watson, J.G.-Moberg, G.P. 126  
Wentzel, D. 100  
Wilkening, R.B.-Meschia, G. 123  
Williams, C.S.F. 29  
Wintour, E.M. 135  
Wolinska-Witort, E. 42  
Wolinska-Witort, E.-Mateusiak,  
K.-Sadowski, B.-Domanski, E. 41  
Yazwinski, T.A.-Moncol, D.J.-Linnerud,  
A.C.-Morgan, G.W.-Tugman, D.F. 115  
Young, B.A. 51  
ZVRAA. 19



**U.S. Department of Agriculture**  
National Agricultural Library  
Beltsville, Maryland 20705

OFFICIAL BUSINESS  
Penalty for Private Use, \$300



Postage and Fees Paid  
United States  
Department of Agriculture  
AGR-101